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BULLETIN
OF THE
TORREY BOTANICAL CLUB.

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No. 3.

A List of Species of the smaller herbaceous Genera of North
American Saxifragaceae.

BY WM. E. WHELOCK.

In studying the herbaceous North American Saxifragaceae, it has seemed desirable to present a preliminary enumeration of the species, with their synonymy and distribution as known to me at the present time, with a view of eliciting comment and to request additional material for examination. The species of *Saxifraga* will be enumerated by Dr. Small in a subsequent contribution.

The genera have been taken up in the sequence adopted by Professor Engler, in Engler und Prantl's "Naturliche Pflanzenfamilien," and I find myself able to agree with him in most of his generic limitations.

The following key will serve to indicate these limitations.

The synonymy is given only for those species not enumerated in the "List of Pteridophyta and Spermatophyta of Northeastern North America," Mem. Torr. Club, 5: 177-180. 1894.

Staminodia wanting.

Large herbs with 3-ternate leaves and polygamous flowers. 1. ASTILBE.

Herbs with simple cleft lobed or 3-foliolate leaves and perfect flowers.

Leaves coriaceous; carpels distinct.

2. LEPTARRHENA.

Leaves membranous, coriaceous or fleshy, carpels more or less united at the base.

Placentae axial.

Ovary superior or nearly so.

Stamens five.

3. BOLANDRA.

Stamens ten.

- Calyx five-toothed, stamens inserted just under the sinuses. 4. JEPSONIA.
- Calyx five-cleft or five-parted, stamens inserted under the ovary. 5. SAXIFRAGA.
- Ovary not superior, more or less adnate to the calyx-tube. 6. THEROFON.
- Petals mostly deciduous; stamens five or ten; seeds ovoid, rough. 7. SULLIVANTIA.
- Petals persistent. 8. SAXIFRAGOPSIS.
- Stamens five. 9. PELTIPHYLLUM.
- Stamens ten. 10. HEMIEVA.
- Leaves not peltate. 11. TIARELLA.
- Petals at length deflexed; leaves papery-membranous, the blade obscurely articulated to the petiole. 12. HEUCHERA.
- Petals not deflexed; leaves coriaceous or fleshy, the blade more or less decurrent. 13. LEPTAXIS.
- Leaves peltate. 14. TELLIMA.
- Ovary almost entirely inferior; stamens five. 15. LITHOPHRAGMA.
- Placentae almost basal. 16. MITELLA.
- Placentae parietal. 17. LEPUROPETALON.
- Petals present (except in some species of *Heuchera*). 18. CHRYSOSPENIUM.
- Plants large, at least several centimeters high. 19. PARNASSIA.
- Petals entire, relatively small.
- Stamens five.
- Stamens three.
- Petals variously toothed, cleft, lobed or parted, or if entire relatively large; stamens five or ten.
- Capsule beaked.
- Corolla regular.
- Corolla often somewhat irregular; petals sometimes entire, the upper often smaller.
- Capsule not beaked.
- Plants minute, about one centimeter high.
- Petals always wanting.
- Staminodia present, alternate with the stamens.

1. ASTILBE Hamilt.

1. **Astilbe biternata** (Vent.) Britton, Bull. Torr. Club, 20: 475. 1893.
Mountains of Virginia and Kentucky to Georgia and Tennessee.

1a. **Astilbe biternata crenatiloba** (Britton).

Astilbe decandra var. *crenatiloba* Britton, Bull. Torr. Club, 15: 98. 1888.

This plant has been seen only from the original station on the slope of Roan Mountain, East Tennessee.

2. LEPTARRHENA R. Br. in Parry's 1st Voy. Suppl. cclxxiii.
1824.

1. **Leptarrhena amplexifolia** (Sternb.) Ser. in DC. Prodr. 4: 48.
1830.

Saxifraga amplexifolia Sternb. Rev. Sax. Suppl. 2. pl. 2. 1822.

Saxifraga pyrolifolia D. Don, Trans. Linn. Soc. 13: 389. 1822.

Leptarrhena pyrolifolia Ser. in DC. Prodr. 4: 48. 1830.

Alaska to British Columbia and Washington.

I have followed Mr. Jackson in "Index Kewensis," in giving priority to the specific name *amplexifolia* over *pyrolifolia*.

3. BOLANDRA A. Gray, Proc. Am. Acad. 7: 341. 1868.

1. **Bolandra Californica** A. Gray, Proc. Am. Acad. 7: 341. 1868.
California to Oregon.

2. **Bolandra Oregana** S. Wats. Proc. Am. Acad. 14: 292. 1879
Oregon, Washington.

4. JEPSONIA Small, Bull. Torr. Club, 23: 18. 1896.

Leaves sub-orbicular, broader than long; calyx-teeth shorter than the tube.

1. J. PARRYI.

Leaves ovate-orbicular, longer than broad; calyx-teeth as long as the tube, or longer.

2. J. MALVAEFOLIA.

1. **Jepsonia Parryi** (Torr.) Small, Bull. Torr. Club, 23: 18. 1896.

Saxifraga Parryi Torr. Bot. Mex. Bound. Surv. 69. pl. 25. 1859.
Middle and southern California.

2. **Jepsonia malvaefolia** (Greene) Small, Bull. Torr. Club, 23: 19.
1896.

Saxifraga malvaefolia Greene, Bull. Torr. Club, 19: 121. 1882.
Santa Rosa Island and Santa Cruz Island.

6. THEROFON Raf.

Stamens 5.

Stipules wanting, or represented by bristles.

Leaves 3-7-lobed or 3-7-cleft.

East American species.

1. *T. aconitifolium*.

West American species.

2. *T. elatum*.

Leaves crenate-dentate or incised.

Petals small, hardly longer than calyx-teeth; Californian species.

3. *T. rotundifolium*.

Petals relatively large; arctic species.

4. *T. Richardsoni*.

Stipules present, often foliaceous and conspicuous.

5. *T. majus*.

Stamens 10.

6. *T. Jamesii*.

1. *Therofon aconitifolium* (Nutt.) Millsp. Bull. West Va. Agric. Exp. Sta. 2: 361. 1892.
Virginia to Tennessee and Georgia.

2. *Therofon elatum* (Nutt.) Greene, Man. 121. 1894.
Saxifraga elata Nutt.; T. & G. Fl. N. A. 1: 575. 1840.
Boykinia occidentalis T. & G. Fl. N. A. 1: 577. 1840.
Boykinia elata Greene, Fl. Francis. 190. 1891.
Boykinia Nuttallii J. M. Macoun, Can. Rec. Sci. 1895.
British Columbia to southern California.

The plant for which Mr. J. M. Macoun suggests the name *Boykinia Nuttallii* does not seem to us sufficiently distinct from *B. occidentalis* T. & G. We have the form to which Mr. Macoun evidently refers even from Santa Cruz, California, but hardly hirsute. We must consider, that Mr. Nuttall was describing a *Saxifraga* when he wrote "a very remarkable robust species."

3. *Therofon rotundifolium* (Parry).
Boykinia rotundifolia Parry; A. Gray, Proc. Am. Acad. 13: 371. 1878.
Southern California.

4. *Therofon Richardsonii* (Hook.).
Saxifraga Richardsonii Hook. Fl. Bor. Am. 1: 247. 1833.
Saxifraga Nelsoniana Hook. & Arn. Bot. Beechey, 124. pl. 29. 1832. Not D. Don. 1822.
Hemieva Richardsonii Raf. Fl. Tell. 2: 70. 1836.
Boykinia Richardsonii A. Gray, Bot. Cal. 1: 196. 1876.
Arctic America.

5. *Therofon majus* (A. Gray).
Boykinia occidentalis var. *elata* A. Gray, Proc. Am. Acad. 8: 383, name only. 1872. Not *Saxifraga elata* Nutt. 1840.
Boykinia major A. Gray, Bot. Cal. 1: 196. 1876.
California to Oregon.

6. *Therofon Jamesii* (Torr.).
Saxifraga Jamesii Torr. Ann. Lyc. N. Y. 2: 204. 1826.
Telesonix Jamesii Raf. Fl. Tell. 2: 69. 1836.
Rocky Mountains, Montana, Dakota.

7. SULLIVANTIA T. & G.

1. **Sullivantia Sullivantii** (T. & G.) Britton, Mem. Torr. Club, 5: 178. 1894.

Ohio, Indiana, Wisconsin.

2. **Sullivantia Oregana** S. Wats. Proc. Am. Acad. 14: 292. 1879.
Sullivantia Hapemani Coulter, Bot. Gazette, 17: 421. 1892.
Oregon, Wyoming.

8. **SAXIFRAGOPSIS** Small, Bull. Torr. Club, 23: 20. 1896.

1. **Saxifragopsis fragarioides** (Greene) Small, Bull. Torr. Club, 23: 20. 1896.

Saxifraga fragarioides Greene, Bull. Torr. Club, 8: 121. 1881.

High altitudes in the mountains of northern California and southern Oregon.

9. **PELTIPHYLLUM** Engler, Nat. Pfl. Fam. 3: Abt. 2, 61. 1891.

1. **Peltiphyllum peltatum** (Torr.) Engl. Nat. Pfl. Fam. 3: Abt. 2, 61. 1891.

Saxifraga peltata Torr.; Benth. Pl. Hartw. 311. 1849.

In and near the Sierra Nevada, California.

10. **HEMIEVA** Raf. Fl. Tell. 2: 70. 1836.

[**SUKSDORFIA** A. Gray, Proc. Am. Acad. 15: 42. 1879.]

Petals short-clawed.

1. *H. ranunculifolia*.

Petals long-clawed.

2. *H. violacea*.

1. **Hemieva ranunculifolia** (Hook.) Raf. Fl. Tell. 2: 70. 1836.

Saxifraga ranunculifolia Hook. Fl. Bor. Am. 1: 246. pl. 83.

1833.

Boykinia ranunculifolia Greene, Fl. Fran. 190. 1891.

Suksdorfia ranunculifolia Engl. in Engl. & Prantl, Nat. Pfl. 3:

2a, 52. 1891.

British Columbia.

2. **Hemieva violacea** (Raf.).

Suksdorfia violacea A. Gray, Proc. Am. Acad. 15: 42. 1879.

Washington; Oregon.

11. TIARELLA L.

Stem a scape; or rarely bearing one small leaf.

1. *T. cordifolia*.

Stem leaf-bearing.

Leaves triangular-cordate.

2. *T. unifoliata*.

Leaves ternately divided, or trifoliate.

3. *T. trifoliata*.

1. *Tiarella cordifolia* L. Sp. Pl. 405. 1753.

Canada to Alabama.

2. *Tiarella unifoliata* Hook. Fl. Bor. Am. 1: 238. *pl.* 81. 1833.

Heuchera longipetala Moc. Icon. Fl. Mex. ined. *pl.* 423.

Petalosteira unifolia Raf. Fl. Tell. 2: 74. 1836.

Oregon to British Columbia.

3. *Tiareella trifoliata* L. Sp. Pl. 406. 1753.

Tiarella stenopetala Presl, Rel. Haenk. 2: 55. 1835.

Blondia trifoliata Raf. Fl. Tell. 2: 75. 1836.

Petalosteira laciniata Raf. l. c. 74. 1836.

Southern Alaska to British Columbia.

3a. *Tiareella trifoliata laciniata* (Hook.).

Tiarella laciniata Hook. Fl. Bor. Am. 1: 239. *pl.* 77. 1833.

Vancouver Island; Washington.

12. HEUCHERA L.

Since the publication of "A Descriptive List of Species of the Genus *Heuchera*," Bull. Torr. Club, 17: 191-204, 1890, the original specimen on which *H. Curtisii* A. Gray was founded has come to light. I referred this plant, with doubt, to *H. villosa* Michx., but an examination of the type shows that it is to be referred to *H. pubescens* Pursh.

13. LEPTAXIS Raf. Fl. Tell. 2: 75. 1836.

[TOLMIEA T. & G. Fl. N. A. 1: 582. 1840. Not Hook. 1834.]

1. *Leptaxis Menziesii* (Pursh) Raf. Fl. Tell. 2: 76. 1836.

Tiarella Menziesii Pursh, Fl. Am. Sept. 1: 313. 1814.

Heuchera Menziesii Hook. Fl. Bor. Am. 1: 237. *pl.* 80. 1833.

Tolmiea Menziesii T. & G. Fl. N. A. 1: 582. 1840.

British Columbia to Oregon.

14. TELLIMA R. Br. App. Frank. Journ. 765. 1823.

Stamens 10; stems 1½-2° tall.

1. *T. grandiflora*.

Stamens 5; stems 6'-8' tall.

2. *T. racemosa*.1. *Tellima grandiflora* (Pursh) Dougl. Bot. Reg. *pl.* 1178. 1828.*Mitella grandiflora* Pursh, Fl. Am. Sept. 1: 314. 1814.*Tiarella alternifolia* Fisch.; Seringe, DC. Prodr. 4: 50. 1830.
Alaska to California.

Mr. Thos. Howell sends us from the Columbia River, near the Cascades, as *T. odorata*, a plant which we do not find sufficiently distinct from *T. grandiflora*, to maintain as a species.

2. *Tellima racemosa* (S. Wats.) Greene, Erythea, 3: 55. 1895.*Heuchera racemosa* S. Wats. Proc. Am. Acad. 20: 365. 1885.
Washington.

In Erythea, 3: 55, Prof. E. L. Greene gives the reasons why, in his judgment, *Heuchera racemosa* S. Watson should be referred to *Tellima*, and in the same volume at page 102, after giving new reasons why he would restore to generic rank the genus *Lithophragma*, refers *Heuchera Williamsii* Eaton, to this latter genus. There certainly seems to be ground for both these positions. With reference to the plant collected by Mr. Williams it is interesting to note that both Mr. Canby and Prof. Eaton referred it to *Tellima* at first, and the latter put the plant finally into *Heuchera* simply because it had entire petals and five stamens. In the Flora of North America, Torrey and Gray, 1: 585, we are told that Mr. Nuttall, in his manuscript notes, called attention to the accordance of *Tellima cymbalaria* Walp. (*Saxifraga Californica* Nutt. mss.) with *Lithophragma*, while he also noticed the fact that the styles are sometimes two only. This makes it easier for us to refer *Heuchera Williamsii* to *Lithophragma*.

If through the adoption of the arrangement above referred to, we sacrifice a stamen character, we gain by removing from the genus *Heuchera* the only two species that seem to be out of sympathy with the rest through having a purely racemose inflorescence.

15. LITHOPHRAGMA Nutt. Journ. Acad. Phila. 7: 26. 1834.*

Petals deeply palmately 3-7-parted.

Raceme 3-6-flowered.

1. *L. tenella*.

Raceme 12-20-flowered.

2. *L. rupicola*.

Petals variously cleft or lobed.

Calyx-tube obconic.

3. *L. parviflora*.

Calyx turbinate.

4. *L. affinis*.

Calyx campanulate.

Pedicels very short.

5. *L. heterophylla*.

Pedicels about as long as the calyx.

6. *L. tripartita*.

Petals entire, undulate, or minutely toothed.

Calyx campanulate, with a broad base.

Pedicels very short.

7. *L. Bolanderi*.

Pedicels about as long as the calyx.

8. *L. scabrella*.

Calyx campanulate, narrowed at the base; stamens 10.

9. *L. Cymbalaria*.

Calyx obconic; stamens 5.

10. *L. Williamsii*.

1. **Lithophragma tenella** T. & G. Fl. N. A. 1: 584. 1840.

Lithophragma glabra T. & G. Fl. N. A. 1: 584. 1840.

Tellima tenella and *T. glabra* Walp. Rep. 2: 371. 1843.

Lithophragma parviflora A. Gray, Ives Rep. 15. 1860. Name

only.

Vancouver Island to Utah.

2. **Lithophragma rupicola** Greene, Erythea, 3: 102. 1895.

California.

3. **Lithophragma parviflora** Nutt.; T. & G. Fl. N. A. 1: 584.
1840.

Tellima parviflora Hook. Fl. Bor. Am. 1: 239. 1833.

Pleurendotria parviflora and *P. reniformis* Raf. Fl. Tell. 2: 73.
1836.

Mitella parviflora Dietr. Syn. 2: 1539. 1840.

Vancouver Island, Oregon, Utah, Wyoming.

4. **Lithophragma affinis** A. Gray; Proc. Am. Acad. 6: 534. 1865.

Lithophragma heterophylla Torr. Pac. R. R. Rep. 4: 90. 1857.

Tellima affinis Boland. Catal. 11. 1870.

California.

5. **Lithophragma heterophylla** T. & G. Fl. N. A. 1: 584. 1840.

Tellima heterophylla Hook. & Arn. Bot. Beech. 346. 1840.

California.

* Original spelling, *Lithofragma*.

6. **Lithophragma tripartita** Greene, Erythea, 3: 102. 1895.
Tellima tripartita Greene, Erythea, 1: 106. 1893.
 California.
7. **Lithophragma Bolanderi** A. Gray; Proc. Am. Acad. 6: 535.
 1865.
Tellima Bolanderi Boland. Catal. 11. 1870.
 California.
8. **Lithophragma scabrella** Greene, Erythea, 3: 102. 1895.
Tellima scabrella Greene; Pittonia, 2: 162. 1891.
 California.
9. **Lithophragma Cymbalaria** T. & G. Fl. N. A. 1: 585. 1840.
Tellima Cymbalaria Walp. Rep. 2: 372. 1843.
 California.
10. **Lithophragma Williamsii** (D. C. Eaton) Greene, Erythea,
 3: 102. 1895.
Heuchera Williamsii D. C. Eaton, Bot. Gaz. 15: 62. 1890.
Tellima nudicaulis Greene, Pittonia, 2: 162. 1891.
 Montana, Wyoming.

16. MITELLA L.

Stem leafy.

Stem-leaves a single pair, opposite; stamens 10.

1. *M. diphylla*.

Stem-leaves 2-3, alternate; stamens 5.

2. *M. caulescens*.

Stem a leafless scape.

Stamens 10.

3. *M. nuda*.

Stamens 5.

Stamens opposite the petals.

4. *M. pentandra*.

Stamens alternate with the petals.

Petals greenish or yellow, pinnately-parted.

Leaves round-reniform, mostly glabrous.

5. *M. Breweri*.

Leaves oval, hirsute on upper surface.

6. *M. ovalis*.

Petals white, 3-cleft.

Calyx campanulate, lobes long, spreading.

7. *M. trifida*.

Calyx-lobes short; leaves angulate-lobed.

8. *M. diversifolia*.1. **Mitella diphylla** L. Sp. Pl. 406. 1753.

Quebec to Minnesota, North Carolina and Missouri.

2. **Mitella caulescens** Nutt.; T. & G. Fl. N. A. 1: 586. 1840.
 Washington, Oregon, Idaho.3. **Mitella nuda** L. Sp. Pl. 406. 1753.

Newfoundland to British Columbia, Pennsylvania and Michigan.

4. **Mitella pentandra** Hook. Bot. Mag. *pl.* 2933. 1828.
Drummondia mitelloides DC. Prodr. 4: 50. 1830.
Pectiantia mitelloides Raf. Fl. Tell. 2: 72. 1836.
Mitellopsis Drummondia Meisner, Pl. Vasc. Gen. 1: 100. 1836.
Mitellopsis pentandra Walp. Rep. 2: 370. 1843.
 Alaska, British Columbia, Montana, Colorado, Utah.
5. **Mitella Breweri** A. Gray, Proc. Am. Acad. 6: 533. 1865.
 British Columbia, Washington, California.
6. **Mitella ovalis** Greene, Pittonia, 1: 32. 1887.
Mitella Hallii Howell, Erythea, 3: 33. 1895.
 Vancouver Island.
7. **Mitella trifida** Graham, Edinb. New Phil. Journ. April, 1829. 185.
Ozomelis varians Raf. Fl. Tell. 2: 73. 1836.
Mitellopsis Hookeri Meisner, Pl. Vasc. Gen. 1: 100. 1836.
8. **Mitella diversifolia** Greene, Pittonia, 1: 32. 1887.
 California, Oregon.
17. LEPUROPETALON Ell. Bot. S.C. & Ga. 1: 370. 1817.
1. **Lepuropetalon spathulatum** (Muhl.) Ell. Bot. S.C. & Ga. 1: 370. 1817.
Pyxidanthera spathulata Muhl. Cat. 24. 1813.
Cryptopetalum pusillum Hook. & Arn. Bot. Misc. 3: 345. 1832.
Lepuropetalon pusillum C. Gay, Fl. Chil. 3: 42. 1847.
 South Carolina, Chile.

18. CHRYSOSPENIUM L.

- | | |
|---|--------------------------------|
| Leaves alternate; stamens 8. | 1. <i>C. alternifolium</i> . |
| Leaves opposite, or alternate; stamens 4. | 2. <i>C. tetrandrum</i> . |
| Leaves opposite; stamens 8. | |
| Leaves obscurely crenate-lobed. | 3. <i>C. Americanum</i> . |
| Leaves crenate-dentate. | 4. <i>C. glechomaefolium</i> . |
1. **Chrysosplenium alternifolium** L. Sp. Pl. 398. 1753.
 Alaska, Europe, Asia.
2. **Chrysosplenium tetrandrum** Th. Fries, Bot. Notis. 193. 1858.
Chrysosplenium alternifolium var. *tetrandrum* Lund. in Sched.
 ex Maxim, Mel. biol. 9: 761.

British Columbia. Recorded by Franchet (Nouv. Arch. Mus. Paris (III.) 2: 107 from Alaska and the mountains of Colorado (Harbour 575).

3. **Chrysosplenium Americanum** Schweinitz; Hook. Fl. Bor. Am. 1: 242. 1833.

New Jersey, Pennsylvania, New York, Wisconsin.

4. **Chrysosplenium glechomaefolium** Nutt.; T. & G. Fl. N. A. 1: 589. 1840.

Chrysosplenium oppositifolium var. β Hook. Fl. Bor. Am. 1: 242. 1833.

Columbia, Washington.

19. PARNASSIA L.

Petals fimbriate toward the base.

1. *P. fimbriata*.

Petals not fimbriate.

Sterile filaments 3 in each set; flowers large, 1 inch in diameter or more.

Leaves ovate or cordate ovate.

Sterile filaments longer than the stamens.

2. *P. grandifolia*.

Sterile filaments about equalling the stamens.

3. *P. Caroliniana*.

Leaves reniform.

4. *P. asarifolia*.

Sterile filaments 3-8 in set; flowers small, less than 1 inch in diameter.

Low, 8 inches or less; scape leafless, or with a small leaf near the base.

5. *P. Kotzebuei*.

Taller, the leaf not much below the middle of the scape.

6. *P. parviflora*.

Sterile filaments about 10 (9-15) in each set.

7. *P. palustris*.

Sterile filaments about 20 in each set.

8. *P. Californica*.

1. **Parnassia fimbriata** Banks; Sims & Koen. Ann. Bot. 1: 391. 1805.

Alaska, Washington, California, Montana, Wyoming, Colorado, Nevada, Utah.

2. **Parnassia grandifolia** DC. Prodr. 1: 320. 1824.

North Carolina, southwestern Virginia, Missouri, Florida.

3. **Parnassia Caroliniana** Michx. Fl. Bor. Am. 1: 184. 1803.

New Brunswick to Manitoba, Virginia, Illinois and Iowa.

4. **Parnassia asarifolia** Vent. Jard. Malm. *pl.* 39. 1803.

North Carolina, Georgia, Virginia.

5. *Parnassia Kotzebuei* Cham. & Schlecht. *Linnaea*, 1: 549. 1826.
Labrador, Bering Strait, Rocky Mountains.

6. *Parnassia parviflora* DC. *Prodr.* 1: 320. 1824.
Canada, Utah.

7. *Parnassia palustris* L. *Sp. Pl.* 273. 1753.
Labrador, Minnesota, Canada, Northwest Territory, Lake Superior.

8. *Parnassia Californica* (A. Gray) Greene, *Pittonia*, 2: 102.
1890.

Parnassia palustris var. *Californica* A. Gray, *Bot. Calif.* 1: 202.
1876.

Revision of the North American Thuidiums.

By G. N. BEST.

The larger part of the material on which this revision is based was furnished by the collection of *Thuidiums* in the herbarium of Columbia University, consisting of a large number of both American and European specimens and exsiccatae. These have been especially useful in that they made a comparison possible between native and foreign species by which diagnostic characters could be deduced with more certainty than could otherwise have been done.

My thanks are due Mrs. Britton for verifying all the citations, arranging the synonymy and in securing the loan of type specimens; also M. Eugene Autran, Prof. John Macoun and Dr. B. L. Robinson for the loan of type specimens. For valuable contributions I am indebted to Dr. C. R. Barnes, Dr. Henri Philibert, Dr. T. C. Porter, Mr. E. A. Rau, Dr. J. K. Small and Rev. A. C. Waghorne.

The *Thuidiums* are widely dispersed over both continents. In North America they range from Greenland to Florida and from the Labrador to Vancouver's Island. Most common in the United States east of the Rocky Mountains, they are rare or absent on the Pacific slope.

In studying a specific type of wide distribution it should be